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ABSTRACT

A critical analysis of terminal vocational education reveals that its benefits may be modest, at best. Supporters argue that vocational education will reduce unemployment by preparing more students for upwardly-mobile "middle-level" jobs. They further contend that vocational education will reduce the number of four-year college graduates and bring the supply of educated people more into correspondence with labor market demands. Critics argue that the "tracking" of students into working-class jobs limits their opportunities for advancement while raising their expectations. Vocational education benefits businesses and corporations more than students since it reduces the costs of training a labor force. A review of available large-scale empirical follow-up studies of former vocational students reveals that unemployment rates of vocational graduates generally exceed 6% and are comparable to the unemployment rates of four-year college graduates. Incomes of former vocational students are generally lower than the incomes of those who have four or more years of college education. Dropouts from vocational education programs tend to earn more than vocational graduates. While advocates may become more realistic about the promises of vocational education, some lack of interest on the part of prospective students may result. (Author/DR)

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TRACKING AND VOCATIONAL EDUCATION IN COMMUNITY COLLEGES

by

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Tracking and Vocational Education in Community Colleges

Abstract

Terminal vocational education is central to the mission of the public community colleges. Supporters argue that vocational education will enable students to escape unemployment by being prepared for "middle-level" jobs which will provide opportunities for upward mobility. In addition, supporters argue that vocational education will help the larger society by reducing the number of college graduates and bringing the supply of educated people into correspondence with the demands of the labor market.

Critics argue that vocational education reproduces economic inequalities by training working class students into working class jobs with short career ladders that offer fewer economic rewards than "college-level" jobs. Unemployment rates will remain high due to the state of the economy. Vocational education, according to critics, benefits the corporations more than the students since it reduces the cost of training the labor force and promotes false conceptions about the chances for upward mobility.

The available large-scale empirical follow-up studies of former vocational students are reviewed. Unemployment rates of vocational graduates generally exceed 6% and are comparable to the rates of college graduates. Incomes of former vocational students are generally lower than the incomes of those who have four or more years of college. Dropouts from vocational education programs tend to earn more than vocational graduates.

The benefits of terminal vocational education are modest, at best. Some supporters of community college vocational education have become more "realistic" about their claims so as not to raise false expectations on the part of the students, but this "realism" will reduce student interest in these programs. Other supporters continue to make unrealistic claims, but economic conditions in the larger society will demonstrate that vocational education can not deliver on its promises.

TRACKING AND VOCATIONAL EDUCATION IN COMMUNITY COLLEGES

The rapid expansion of public community and junior colleges¹ has been one of the most significant aspects of higher education in the United States in the period since World War II. In 1946, the quarter of a million students enrolled in two-year colleges accounted for only 10% of all students in higher education. By 1977, enrollment in two-year colleges had passed the 4 million mark and accounted for 36% of total enrollment in higher education. Most of this phenomenal explosion had taken place since 1960. Over half of all freshmen in 1977 were enrolled in community colleges (Medsker and Tillery, 1971; National Center for Education Statistics, 1978). Clearly, the public community college has become the main entry point for new college students.

An equally significant transformation, which has received somewhat less publicity, has been occurring within community colleges themselves: more and more students have been enrolling in terminal vocational courses that are intended to lead to immediate employment, rather than college parallel courses that enable students to transfer to a four-year school. According to estimates² of the American Association of Community and Junior Colleges (1977), the percentage of community college students that were enrolled in vocational programs increased from 13% in 1965 to 50% in 1976.

The significance of the impact of community colleges has been sharply debated in the 1970's. Both critics and supporters of community colleges agree that

these institutions perform an important sorting function by allowing some students to transfer to a four year school to complete a bachelor's degree while convincing others to end their college educations after two years or less. Critics and supporters also agree that terminal vocational education for those students who do not transfer is the very core of the community college "mission." Yet there is widespread disagreement about whether or not these schools benefit their most important constituencies--"non-traditional" students from working class and non-white families.

This paper will provide a critical analysis of community college vocational education. First, the political and educational arguments for and against community colleges and vocational education will be presented. Next, the empirical evidence that pertains to the effects of vocational education on the students will be presented. Finally, some conclusions about vocational education will be drawn.

The Case for Vocational Education

Supporters of vocational education in community colleges also tend to support the "mission" of these institutions. Community colleges are said to play a "democratizing role" by making it possible for increasing numbers of people to attend college and have the opportunity for social mobility. The diverse curriculum, especially transfer and vocational courses, provides students with a wide range of options that is said to be limited only by meritocratic criteria and individual motivation.

Community colleges also have the job of helping students to decide what is best for them, given each student's level of ability. Counsellors and teachers must convince students with low or modest levels of ability that a terminal vocational degree is both desirable and the best that they can

hope for. This process of convincing students to lower their educational aspirations is often referred to as the "cooling-out" function of the community colleges (Clark, 1960). Students who do not readjust their unrealistic aspirations must face the inevitable--dismissal due to poor grades.

Most supporters also acknowledge that a significant amount of race and class inequality in terms of academic achievement still exists at community colleges. However, this is often viewed as justified since it is said to be based on meritocratic criteria rather than on overt discrimination. Some typical examples of the views of community college supporters can be found in the works of Clark (1960), Blocker et al. (1965), the Carnegie Commission on Higher Education (1970, 1971, 1973), Medsker and Tillery (1971) and Monroe (1972).

Looking more specifically at vocational education, supporters argue that community colleges should prepare students to enter the world of work that exists now and in the immediate future. This would benefit the entire society by training the skilled people-power that is necessary for economic growth and by eliminating the economic and social costs of unemployment and underemployment (Harris, 1973).

Supporters of vocational education first point to changes in the composition of the labor force which, they argue, indicate that today's jobs require more skill and more education than in the past. Specifically, they point to increases in the percentage of workers in the "professional" and "managerial" categories. In 1970, 28% of the men and 19% of the women were employed in these "college-level" jobs. In 1940, on the other hand, only 14% of the men and 16% of the women had jobs in these two categories (Carnegie Commission, 1973). As a result of these changes, supporters

argue, it is becoming increasingly necessary for students to receive some higher education in order to get a decent job.

Much of these changes in the labor market are often attributed to the development of technology. Machines replace people at the lower skill levels and, at the same time, create new jobs at the higher skill levels in most industries.

Even more important than the changes within a single industry are changes between industries. It is generally agreed that there has been a tremendous expansion of those industries that employ large numbers of college-educated workers.

Among the industries with many graduates are: federal public administration, with one in six male graduates working for the national bureaucracy; professional services, ranging from law to welfare; finance, insurance and realty; certain manufacturing industries, including ordnance, chemicals, petroleum, instruments, electronics, computing, aircraft, electrical machinery; and of course, education, which accounts for the employment of over one-half of female college graduates and one-tenth of male college students (Freeman, 1976:65).

The expansion of health professions and university based research and development programs are of particular importance.

Of course, those students who complete community college vocational programs of two years or less are not considered to be qualified to enter many of the professional and technical jobs. In fact, they are being prepared for jobs that are usually referred to as the "semi-professions," "para-professions," "technical occupations" or "middle-level occupations."

These technical programs can be completed by students who do not have the ability required for the baccalaureate degree. Furthermore, the need for technicians is increasing more rapidly than for professionals. Estimates of the technician-to-professional ratio vary from two-to-one to four-to-one or even six-to-one (Blocker, et al., 1965:4).

In training students to fill these jobs, supporters of vocational education argue that the community colleges will be providing an important service to the "society" which "needs" these kinds of workers.

But students will also benefit from occupational education, according to supporters, by being able to qualify for these relatively high skilled jobs and escape from the problems of unemployment. Monroe (1972) describes the characteristics of these "middle-level" jobs which, he argues, fall in between the professional jobs and the skilled crafts.

- 1) They require training beyond the high school level.
- 2) They require some theoretical knowledge of mathematics and science equal to the first year or two of a professional program.
- 3) They require training in the development of manipulative skills for using delicate and precise laboratory instruments and equipment.
- 4) They often require that a person have personality characteristics which allow him to understand human behavior, especially if he is employed in a supervisory position or in a social-service or human relations occupation.
- 5) They train students as assistants to professional workers or administrative officials (p. 82).

Vocational education leading to "middle-level" employment is also seen as a means of upward mobility for those "non-traditional" (i.e., non-white and working class) students who may be the first in their families to attend college.

A community college student, of course, might ask the following question: "Why should I settle for a middle-level job when I can transfer to a senior college and get an upper-level job?" Vocational education advocates have two responses. First, as has already been suggested, they argue that many community college students don't have the academic skills to qualify for these better jobs. These "latent terminal" students (i.e., those who want to transfer but are "destined" to terminate their educations in community colleges) will not be qualified for anything if they don't realize their "limitations."

Second, vocational education advocates say that the supply of college graduates is growing faster than the demand: Americans are becoming "over-educated." The Carnegie Commission (1973) estimates that in the 1970's, a high school degree is sufficient to qualify an individual for 80% of the available jobs. The Commission also estimates that in the 1970's, one-quarter of all college graduates, 2.6 million people, will enter jobs that do not require a college degree; this figure could reach 50% in the 1980's.

Freeman (1976) shows that a larger percentage of college graduates was employed in non-professional and non-managerial jobs in the early 1970's than in the late 1950's. Of the persons who received bachelor's or master's degrees in 1972, one quarter of the women and almost one third of the men were employed in non-professional or non-managerial jobs. Only 5% of the 1958 graduates held non-college related jobs. When asked why they could not find jobs in their fields, the 1972 male graduates were three-times more likely to cite "lack of jobs" than the 1958 graduates; the 1972 female graduates were almost five-times more likely to cite "lack of jobs" than the 1958 graduates.

Why are college educated people having such trouble finding appropriate jobs? According to Freeman, the growth of "college-manpower-intensive" sectors of the economy has leveled off, but the supply of college educated people has continued to grow.

Employment in federal public administration showed no growth between the 1960's and the early 1970's, while employment in college-intensive manufacturing actually fell by 1.2%. Employment in the education sector and the finance, insurance and realty sector increased in the 1970's, but at a slower rate than in the 1960's. Only employment in the professional service sector showed an increase in the rate of growth. Employment in sectors of

the economy that is not "college-manpower-intensive" showed a stable rate of growth, according to Freeman.

This has caused significant employment problems for teachers. In 1967, 33 states reported teacher shortages and none reported excesses. By 1973, 25 states reported teacher excesses, and none reported shortages. Similar excesses of qualified personnel exist at the college-teaching level. The proportion of the gross national product (GNP) that is spent on education has begun to decrease in the early 1970's, as has the proportion of the GNP spent on defense and on research and development, both college-manpower-intensive sectors (Carnegie Commission, 1973; Freeman, 1976).

What are college students supposed to do? The Carnegie Commission has one answer: "Develop realistic expectations about jobs. . . (M)any college graduates must be reconciled to not getting the job of their first choice" (p. 10).

Yet, the Commission realizes that things are not so simple: failure to make the proper adjustments to reduce the supply of educated people could lead to several serious problems. First, there is a tremendous "waste" in economic resources. Second, the country could end up "...with a political crisis because of the substantial number of disenchanted and underemployed or even unemployed college graduates--as in Ceylon, or in India or in Egypt . . . Higher education will then have become counterproductive" (p. 5).

Students seem to present educational policy makers with several major problems. On the one hand, students who have the skills to graduate from college find that their degree becomes less valuable in terms of getting a decent job, so they become "disenchanted" or "frustrated." On the other hand, students who don't have the traditional skills to complete four years of college also become frustrated for not having the chance to be upwardly mobile. The non-graduates have a particularly difficult time because employers can

artificially increase the educational requirements for jobs without actually changing the nature of the job because of the large pool of college educated people. This is generally called "credentials inflation."

Freeman looks to certain "market mechanisms" to bring about a correspondence between supply and demand.

The college market tends to follow the classic cobweb feedback system that has long been associated with the markets for corn or hogs. Like these agricultural products, the supply of graduates is determined by market conditions several periods earlier, due to the fixed time delay in educational production, and is thus a lagging function of the state of the market. Such a structure generates oscillatory ups and down, with shortages changing into surpluses every 4 or 5 years (p. 60).

For example, if salary and employment opportunities for teachers are good, students will flock into education departments. By the time they graduate, however, there will be an oversupply of teachers which would drive down salaries and employment opportunities. Students would then tend to stay away from education and enroll in some other field which looks more attractive, which would result in a shortage of teachers several years later.

Freeman argues that students can and do "beat the system" by becoming sensitive to changes in the labor market; they must know where in the cycle a particular occupation is. The Carnegie Commission (1973) concludes that

the labor market conditions of the 1970's are likely to encourage an acceleration of the rise in the relative importance of enrollment in occupational programs in two-year colleges that occurred in the 1960's. . . Continued shortages of health workers will be a factor, as well as the prospect of favorable market conditions for graduates of other technical occupational programs available in two-year colleges (p. 46).

So, students can deal with the "over-supply" of college graduates by reducing their aspirations and preparing to enter one of the "middle-level" occupations.

The community colleges' time has come! Their leaders had been trying to promote the concept of vocational education since the 1930's but few people were listening. After World War II, several corporations and most high-level government commissions on higher education had supported vocational education, but the action was still in the liberal-arts-oriented four-year schools.³ The federal government finally began to finance post-secondary vocational education in 1963, and the Carnegie Commission picked up the vocational theme in the 1970's. In 1977, the federal government spent \$103 million on post secondary vocational education, much of which went to community colleges (Roark, 1978).

In spite of growing support for two-year terminal vocational education, there was a snag: students still wanted to transfer to a four-year school and get a bachelor's degree. Although half of all community college students in 1976 were enrolled in terminal occupational programs, over two-thirds of the freshmen in 1976 said that they wanted to receive a bachelor's degree (Astin, 1977; Segner, 1974).

In a Carnegie Commission-sponsored study of community colleges, Medsker and Tillery (1971) state, "The resistance to occupational programs by many students who might profit from them has long disturbed community college leaders" (p. 60). Even as far back as 1941, the then Executive Director of the American Association of Junior Colleges concluded that the "recognition of the terminal function. . .existed more as aspiration in the minds of administrators than as realization in the experience of students and their parents" (quoted by Lombardi, 1978:4; also see Gleazer, 1977).

By the mid 1970's, students had been convinced to enroll in the programs, but they had not been convinced to lower their aspirations.

Why won't students be satisfied with two-year terminal programs? Why do they insist on getting a bachelor's degree? Is it simply a question of "status seeking" or does it have something to do with the kinds of jobs for which they are being prepared? It is to these questions that we now turn.

A Critique of Vocational Education

Critics of community college vocational education are also critics of community colleges themselves. They argue that these institutions are the lowest track in a stratified system of higher education that is ostensibly based on meritocratic criteria. However, working class and non-white students are overrepresented in two-year schools and underrepresented at elite public and private four-year schools. Students in community colleges who want to get a bachelor's degree are much less likely to accomplish this goal than students at four-year schools, even when students' level of ability is statistically controlled.

Within the community college, critics argue, vocational education is the lowest track. Working class and non-white students are overrepresented in these programs and underrepresented in the transfer programs. If students in vocational programs get jobs at all, they will get lower incomes than those who complete four years of college. The so-called "middle-level" jobs for which community college students are being trained are, according to critics, actually new types of working class jobs. In other words, students from working class and non-white families are now going to a community college to be trained for working class jobs, while white upper income students still get the better jobs that go along with a college degree.

In this way, critics argue, the community colleges play an important role in reproducing the educational and economic inequality that exists in the larger society. The fact that many community college students are the first in their families to attend college makes it appear that significant upward mobility is occurring and the apparent meritocratic basis of community colleges tracking helps to legitimate the resulting inequalities. It is the leaders of business and industry who really benefit from the community colleges since people are trained to fill the new working class jobs that exist in corporations and in government bureaucracies.

Examples of this critical approach to community colleges can be found in the work of Karabel (1972), Corcoran (1972), Pincus (1974), Bowles and Gintis (1976) and Zwerling (1976). Even some community college supporters have realized that the tracking argument is a potential challenge to their claims of "democratization" (For example, Newman, 1971; Cohen, 1971, 1975; and Hunt et al., 1977).

Critics raise an important issue that should be an essential part of any analysis of community college vocational education: class conflict. Working class people may not have the same interests as their employers and the prestigious commissions that represent the interests of big business. For example it is perfectly reasonable for students from working class families to want to get a B.A. in order to have a better chance to be upwardly mobile; as a result, they resist two-year terminal vocational programs. It is also reasonable for big business interests to want to limit the aspirations of working class people due to the limited number of positions "at the top"; as a result, they propose two-year vocational programs. Both are reasonable responses, given the positions of workers and business men in a stratified capitalist society.

Rather than simply saying that vocational education meets the "needs" of the "society," we must begin to ask "whose needs?" Rather than simply preparing students for the available jobs, we must begin to examine the nature of work, itself. Rather than seeing the mismatch between aspirations and jobs as a problem because it might lead to political upheaval, we must ask "a problem for whom?".

In fact, community college vocational education performs several important economic and ideological functions that are of direct benefit to those sectors of American society who want to maintain the economic and social status quo, especially the leaders of large corporations.

1. Vocational education reduces labor costs and increases profits.

Most observers agree that vocational education is becoming a substitute for on-the-job training (OJT).

Instances abound of cases where in former years a firm ran its own training programmes but now sends its staff to colleges of various kinds or else recruits at a higher level of education than it did (Lauwerys and Scanlon, 1968:7).

The Bureau of Labor Statistics (1974) states that while many "middle level" jobs require either a community college vocational degree or OJT, many employers "increasingly prefer" prospective employees to have community college training.

Why has this taken place? In some cases, there are certain skills that are required by increasing technology that students must learn before receiving a license to do the job. This may require a knowledge of basic theory as well as technique, and it could be argued that a school is the proper place to carry out the training. Some of the allied health professions might be cited as an example.

In other cases, however, vocational education supporters talk about finances, not technological necessity.

It has been demonstrated that the two-year college can furnish superior training at reduced costs. This is particularly true when industrial leaders serve on advisory committees and qualified employees of the concern are retained by the college to assist in the development and teaching of courses (Blocker, et al., 1965:67).

Ginsberg (1968), on the other hand, argues that OJT is cheaper per student and Lauwerys and Scanlon (1968) suggest that "very often industry itself can best perform the training" (p. 7).

There is no real inconsistency here if one asks the following question: cheaper for whom? OJT increases the labor costs of private corporations, which generally results in higher prices, lower sales and lower profits. If this training could be done in community colleges at public expense, the corporations benefit; i.e., part of their labor costs are socialized, but their profits are still privately appropriated. OJT is decreasing "not because it is technically inefficient (it apparently is very efficient technically) but because it does not pay" (O'Connor, 1973:112).

One might expect corporations to support OJT if it were profitable. One example of this can be found in Chicago where the Chicago Alliance of Business-Manpower Services allocates federal funds to private businesses to pay half of the salary of job trainees. Over 40% of the job slots were in the very occupations that community college students are trained for, including lab technicians, underwriters and clerical workers. One businessman said that the program was a "fantastic idea. We couldn't afford to hire people who weren't trained, but with the Government helping this way, we are pleased to give jobs to people who really want to work" (Sheppard, 1978:D4).

It is necessary to differentiate between the requirements of an advanced technological society and the requirements of an advanced technological capitalist society. It very well may be that the growth of community college vocational education has less to do with the "needs of society" and more to do with the desires of corporations to use the state to keep their profits high. Some workers who formerly learned their skills while being paid, now must pay tuition to learn the same skills.

2. Vocational education prepares students to enter jobs with modest pay and short career ladders which require only modest skill.

Vocational education supporters have argued that technological development has resulted in a new set of "middle-level" jobs which require significantly higher levels of skill and responsibility than traditional working class jobs, both blue collar and white collar. Jobs that require little or no skill, they continue, are rapidly disappearing. Hence, vocational education is supposed to provide students with avenues of upward mobility.

Braverman (1974), on the other hand, has a different view of skill in today's labor market.

The capitalist mode of production systematically destroys all-around skills where they exist, and brings into being skills and occupations that correspond to its needs. Technical capacities are henceforth distributed on a strict "need to know" basis. . . Every step in the labor process is divorced, so far as possible, from special knowledge and training and reduced to simple labor. Meanwhile, the relatively few persons for whom special knowledge and training are reserved are freed so far as possible from the obligations of simple labor. In this way, a structure is given to all labor processes that at its extremes polarizes those whose time is infinitely valuable and those whose time is worth almost nothing. This might even be called the general law of the capitalist division of labor (p. 82-83).

The reason for this division of labor is, according to Braverman, to increase profits and control over workers. It is possible to pay workers less when

skills are broken down. Since workers have less knowledge of the production process, they are more dependent on others to make decisions.

Braverman explains how skilled machinists requiring several years of apprenticeship, became an anachronism with the development of the semi-automated "numerical control" machine tools process. Rather than teaching the machinist how to run the new machines, the corporations generally broke the one job up into three: parts programmer, planner, and operator. Each of these jobs, according to Braverman, can be learned within several weeks.

An article in Monthly Labor Review says: "Most of the functions of the skilled machinist have been shifted to the parts programmer. Consequently, skilled machinists often staff these positions." This may have been true at the outset, but the job of parts programmer now increasingly falls to the technical college graduate (often from the two-year junior college) who fits the "labor profile" of this desk job more closely than the machinist, especially in being cheaper (p. 202).

Thus, while the new machine has certain technical advances, it also reduces labor costs by employing less skilled people at lower wages, even though they may have more formal education.

Along the same lines, dentists can increase both their incomes and the number of patients that they treat in a given day by employing an assistant and a hygienist. Dentists no longer have to spend their time doing the more routine tasks: cleaning teeth, taking x-rays, cleaning instruments, answering the phone, etc. Instead, dentists can pay low salaries to women employees, some of whom are trained in community colleges, and increase the volume of high-fee services that require more skill: e.g., filling cavities, treating gum disease, etc.

Although some community college advocates describe the "middle-level" occupations in lofty terms, others are more direct. Over a quarter of a century ago, a former president of the American Association of Junior Colleges

said, "Democratic cooperation means more than topflight leadership. So to speak, it also means intelligent followership" (quoted by Zwerling, 1976: 17). He was speaking, of course, about the role of vocational education.

A recent article in Public Personnel Management extends the "followership" theme:

Paraprofessional men and women in public employment are handicapped in discriminating among values, in practicing rational discourse, and in reflecting on the great issues confronting man and society. Since they were not exposed to these forms of educational experience while in school, the chances are that they will hardly make significant steps to make up for them (Villeneuve, 1975:401-402).

O'Toole (1977), author of the U.S. Department of Health, Education & Welfare report Work in America concludes that

the economy is creating a great number of not terribly attractive jobs. . . (M)any of the new jobs that look good (positions as health paraprofessionals and teachers' aids and the "new careers" for technicians that require a two-year A.A. or A.S. degree) also do not have career ladders and are limited in their scope by the prerogatives of the professionals who supervise them. In reality, there are precious few jobs that make much use of higher-order skills, training, and intelligence (p. 49).

The important point here is that employment in these "middle-level jobs" is not necessarily a "step up" from blue collar occupations, especially those in the skilled trades. The increase in the educational level of many occupations is due more to an increased supply of educated workers and less to an increase in needed skills (Berg and Freedman, 1977; Rodrigues, 1978).

But Medsker and Tillery (1971) say that not all students can qualify for these "middle level" occupations and that community colleges must provide vocational programs with different standards so that students at different levels of ability can qualify for some occupation. In 1975, twice as many

students were enrolled in clerical, industrial and trade programs than in technical and health programs (Kuhns and Martorana, 1977). Therefore, many community college vocational students are actually being prepared for the very jobs that they were supposed to rise above.

In order to gain some idea of the economic rewards that accrue to different types of jobs, the median salaries for workers at beginning ranks and upper ranks of 11 different occupations are presented in Table 1. The most obvious point is that professionals have higher incomes than those in "middle level" or clerical jobs.

But it is also possible to get a sense of the career ladders in each occupation by comparing the median salary for the beginning ranks with the median salary for the top ranks. In the professional occupations, median salary in the upper rank of a given occupation is between $2\frac{1}{2}$ and $3\frac{1}{2}$ times higher than the median salary of the beginning rank of the same occupation. The range of top to bottom salary among the "middle-level" occupations is between $1\frac{1}{2}$ and 2 times. In the office occupations, the top salary never exceeds $1\frac{1}{2}$ times the bottom. In other words, opportunities for advancement in the clerical and "middle-level" jobs are much lower than in the professional jobs.

In addition to the fact that community colleges prepare students to enter jobs that are "not terribly attractive" in terms of economic rewards or required skills, it is not even clear that prospective employers are interested in students trained in specific skills that vocational education provides. Kuhns and Martorana (1977) argue that employers are most concerned with deficiencies in general competencies, rather than specific skills. Roger M. Blough, Chairman of the Board of U.S. Steel Corporation, says that in terms of going into management, a bachelor's degree provides

important evidence that its bearer possesses a mind that has experienced some cultivation and possesses a personality which has undergone some group experiences not altogether unlike those which may be experienced in industry. These two characteristics make the bearer an obvious candidate for the special training and experiences which may be offered in industry (Blough, 1968:42).

Even the Carnegie Commission, a strong advocate of community college vocational education, stresses the importance of a student getting broad rather than narrow skills.

At least some employers are more concerned with what social scientists have labeled "non-cognitive" abilities than with technical skills. If this is what is really important for prospective managers, one wonders what personnel officers think about the "personality and cultivation" of someone who has only completed an A.A. in business.

All of this raises serious questions about the necessity of attending college for one to two years in order to gain the skills that are necessary to enter occupations which require only modest skills that could easily be learned on the job.

3. The ideology of vocational education helps to perpetuate the belief that unemployment is due to the lack of skills, not the capitalist economy.

Community college supporters generally argue that vocational education will help to decrease unemployment. Those with no skills (e.g., dropouts) can get them, and those with the wrong skills (i.e., the "overeducated") will be directed into those programs which will provide them with the "needed" skills.

Yet, when one examines the statistics, it becomes clear that high unemployment rates have been a permanent part of the American economy for years. Traditional economists generally agree that a 4% unemployment rate indicates "full-employment." Accepting this figure for the sake of argument, the American economy has reached an annual full-employment rate only 27 times between 1890 and 1977; i.e., unemployment has been higher than 4% in 2/3 of those years. In the years since 1950, unemployment has been higher than 4% in 3/4 of the years. The unemployment rates would be even higher if "discouraged workers" and part-time workers who want to work full-time were counted as unemployed (DuBoff, 1977).

The jobless rate is highly dependent on the state of the economy and on political decisions made by the federal government. Unemployment is lower during war years and higher during recessions and depressions. The Nixon and Ford administrations were quite candid in saying that their anti-inflation programs would increase unemployment. During the 1970's, some politicians and traditional economists began to say that a full-employment rate of 5% would probably be more realistic.

New York City municipal employees have been laid off in the 1970's not because they had inadequate skills and not because they were unneeded. They

were laid off because the city was facing a fiscal crisis. This happened with workers in the health and education sectors, as well as with police officers, firefighters, and transit workers. Half of the city's snow-removal equipment did not function in the winter of 1978 because of the lack of funds to employ adequate numbers of the maintenance staff.

Unemployment is also dependent on the level of political activity of the population and the perceived threat to the social order; i.e., class conflict. After the urban insurrections of the 1960's, there was an expansion of funds going to job training programs and other government services in order to cool things down by creating jobs. This occurred in spite of the high levels of military spending for the Vietnam War. As the threat of violence subsided and the negative economic effects of the war became apparent in the form of inflation, much of the funding for these programs dried up.

Although people with skills are more likely to be employed than those without skills, everyone will have trouble finding and keeping a job when the general unemployment rate is high. O'Connor (1974) has argued that monopoly capitalism creates an increasingly larger surplus population that cannot find jobs. Most of the problems of unemployment are systemic and beyond the scope of vocational education (O'Toole, 1977; Grubb and Lazerson, 1975).

4. Corporate leaders hope that vocational education will help bring the schools into correspondence with the needs of the corporation.

As was mentioned above, higher education is turning out more graduates than the labor market can use; there is a lack of correspondence between education and the work place. If community college vocational education helps students to lower aspirations by creating alternatives to four years of

college, a closer correspondence between education and the world of work will exist. Clearly, this is the strategy of the Carnegie Commission.

However, the problem of "over-education" is not an accident that can be easily corrected by better planning. It is an important indication that American capitalism cannot deliver on its promises; there are inherent contradictions within capitalism itself.

This correspondence between school and workplace is continually shattered by the very forces which create it, and by the uncertainties of "the labor market" in an economy of crisis. There was a "glut" of teachers in 1870, a shortage in 1950, and a glut again in 1975. There was a "crisis" shortage of engineers and technicians in the mid-1960's and an "oversupply" a few years later. Employers push for vocational training within the schools and then complain that students' skills are obsolete by the time that they graduate. Under certain circumstances capitalists push for the expansion of education, in part to shift training costs to the public, and then, in an assault on services like the current one, squeeze the educational system into virtually total failure. A multiplicity of effects generates a process in education characteristic of capitalism generally: the cheapening of the product. Schools produce graduates untrained at a level sufficient for capital itself. The capitalist system, whose most abundant product is waste, wastes human lives and human resources so prolifically as to cause occasional alarm even in "human capitalists" themselves (Gorlick, 1977:27; also see Carter, 1976).

In this view, the potential political turmoil caused by the "oversupply" or "underutilization" of college graduates should not be seen as negative from the point of view of the working class. Although corporate leaders have every right to fear this turmoil since it is a direct threat to their authority, working people should learn a valuable lesson about the nature of capitalism and direct their anger toward transforming the system into one that serves their needs. Corporate leaders will try to convince people to accept terminal vocational programs and "middle-level" jobs, but working people should resist and demand four years of college and more meaningful, better paying jobs.

We will return to this issue later. So far, we have argued that the vocational education strategy is beneficial to corporate leaders. But, what is the payoff to the students in terms of income and employment; i.e., do students actually get meaningful well-paying jobs. Supporters are optimistic and critics are skeptical. Let us now examine the empirical evidence.

Economic Payoff to the Student

Although community college supporters have been trying to increase enrollment in vocational education courses for decades, there is surprisingly little evidence concerning the economic payoff of these programs to the students.

Although the data on employment patterns of college graduates are far from ideal, the dearth of good data on graduates of community colleges and on dropouts is far more serious. In our search for relevant information, we have found that a few community colleges or community college systems have conducted follow-up studies of their former students, but in none of the studies available to us was information collected on the occupations that employ these former students (Carnegie Commission, 1973:47).

The same can be said about the incomes of former community college students.

A review of the articles in Community and Junior College Journal since January 1976 found only one article which dealt with systematic follow-up data (Noeth and Hanson, 1976). This study provided limited data about the employment of former students and no data about unemployment rates or income. Yet, in spite of the dearth of data, the American Association of Community and Junior Colleges, publisher of the Journal, and other community supporters continue to advocate vocational education as the road to economic security.

In order to assess the impact of these vocational programs, the unemployment rates and incomes of recent graduates and non-graduates of community college vocational programs are needed. These should then be compared with comparable figures for recent high school graduates, community college liberal arts graduates, college dropouts, and four-year college graduates. Ideally, such factors as age, sex, race and family income should be statistically controlled since they all affect income and unemployment.

Of course, these data are not available on a national level. The Census Bureau and the Bureau of Labor Statistics use the following educational categories: four years of high school (high school graduate), one to three years of college (some college) and four or more years of college (college graduates). Hence, it is impossible to differentiate community college graduates from those who received no degree. Statistical controls for sex, race and age are sometimes available, but information on parents' income is rarely given.

In lieu of the national data, it is possible to examine more limited follow-up studies of former community college students to get data on income and unemployment. However, serious methodological problems in these studies limited the type of analysis which could be carried out. For example,

- response rates are generally low and little or no attempt is made to contact a sample of non-respondents;
- most studies are concerned only with graduates of vocational programs, and only a few have data on non-graduates;
- most studies do not present statistical breakdowns on the basis of age, sex, or race, and none give breakdowns based on parents' income;

- the data are sometimes presented in such an incomplete or unintelligible way as to make them useless;
- studies were done in different years, which makes comparison between them very difficult.

In spite of these difficulties, the following state-wide follow-up studies of vocational students in public community colleges and technical institutes did provide usable data: Connecticut (Elterich, 1976), Hawaii (Office of the Chancellor for Community Colleges, 1978A, 1978b), Illinois (Illinois Community College Board, 1978), Maryland (Tschechtelin, et al., 1976), Minnesota (Pucel and Murphy, 1975), New Hampshire (New Hampshire State Department of Education, 1977), Oregon (Vinarskai, et al., 1975), Pennsylvania (Martinko, 1978), South Carolina (State Board for Technical and Comprehensive Education, 1978), and Virginia (Eyler, et al., 1974).

In addition to these state-wide studies, two additional large-scale follow-up studies were also available. Noeth and Hanson (1976) studied students who completed the American College Testing Program questionnaire in 1970 and who were enrolled in community colleges, technical schools and other post-secondary vocationally-oriented institutions. Wilms (1975) contacted recent graduates of six specific occupational programs in 48 public and proprietary post-secondary vocational schools in four different cities in the spring of 1973.

Did Students Get the Jobs that They Were Trained For?

The best way to answer this question is to ask the students to describe the job that they currently hold and then to determine whether or not this is related to their field of study. Only two studies used this approach. Wilms (1975) found that only half of the students actually found jobs for

which they were trained. Students in dental assistant, secretarial and cosmetology programs were most likely to receive appropriate jobs, and students in accounting programming and electronics technology were the least likely.

Noeth and Hanson (1976) found that job-relatedness was dependent on the type of educational program that was completed. One hundred percent of nursing graduates, 79% of automechanics graduates, 72% of accounting graduates, 62% of electrical engineering technology graduates, 50% of business and marketing graduates and 11% of science graduates held jobs in the fields for which they were trained. In four of the six areas, graduates were more likely to find related jobs than non-graduates.

In both of these studies, it was women being trained for "women's work" who were most likely to get related jobs. However, this is a mixed blessing since those are also the jobs that have relatively low pay.

The eight state-wide studies that addressed this issue asked students the following type of question: "Is your present job directly related, somewhat related or unrelated to your field of study?" This leaves students with a great deal of latitude so the meaning of the responses is questionable, especially with regard to the "somewhat related" category.

Answers to this question differed widely from study to study. The percentage of students who saw their jobs as directly related to their educations ranged from 37 to 95, with the median response being 64%. The "unrelated" responses ranged from 5% to 43%, with the median being 22%. In other words, although a majority of students saw their jobs as directly related to their educations, a substantial minority did not. The studies generally combined the "somewhat related" category with the "directly related" category, but we have simply omitted this middle category due to its ambiguous nature.

Although the data are incomplete, it seems clear that completing a vocational program does not guarantee a job in that field. Students in some fields seem much more likely to be placed in related jobs than students in other fields.

Unemployment Among Former Vocational Students

In order to calculate the unemployment rates among former vocational students, it was necessary to consider as a base only those who were looking for work. This meant excluding full-time students not looking for work, housewives, people in the military and others who were classified as "unemployed and unavailable for work." This is actually a conservative estimate of unemployment since it did not include those working part-time who want to be working full-time, and "discouraged workers" who may have become housewives or have returned to school because they couldn't find jobs.

The unemployment rates of former vocational students are presented in Table 2. Two immediate conclusions can be drawn from these data. First, the unemployment rates are high. In seven of the nine studies, unemployment rates of vocational graduates were above 4%, the standard of full employment. Second, graduates were less likely to be unemployed than non-graduates. This is true in four of the five comparisons that are presented in Table 4.

In order to determine how vocational graduates compared with the general population, the unemployment rates for the total national labor force are presented in Column 5 of Table 2. Fifteen different comparisons are available. Only differences in the vocational graduate and total unemployment rates that exceeded 0.5% were counted as significant.

The data suggest that community college vocational graduates have unemployment rates that are not very different than the total population. In seven instances, vocational graduates were more likely to be unemployed than the general population; in six instances they were less likely to be unemployed; and in two instances, their unemployment rates were the same as the total population.⁴

However, it could be argued that since many of the vocational graduates are young and just entering the labor force, it is more appropriate to compare them with the 16 - 24 year-old population that has attended college (See Columns 6 and 7 of Table 2). When this is done, vocational graduates are less likely to be unemployed than 16 - 24 year-olds with one to three years of college who are no longer enrolled in school. In seven of the comparisons, vocational graduates are less likely to be unemployed than those with some college; in three of the comparisons they are more likely to be unemployed.

However, vocational graduates' unemployment rates are equivalent to the rates of 16 - 24 year-olds who have completed four or more years of college and who are not still enrolled in school. Vocational graduates are more likely to be unemployed than those with bachelor's degrees in five comparisons, and less likely to be unemployed in six comparisons.

In other words, vocational graduates are better off than young people with some college, and equivalent to those who have graduated from college in terms of unemployment. However, these findings are not unambiguous.

First, while the national 16 - 24 year-old data are for those not still enrolled in school, the vocational graduate data includes those who are

still enrolled and working. If these "continuing students" were omitted from the base upon which vocational graduate unemployment was determined, the rates would increase.

Second, many vocational graduates are above 25 years of age. Since older people are less likely to be unemployed than younger people, more accurate national comparison unemployment rates should be a little lower.

Statewide follow-up studies should make some attempt to evaluate vocational graduate unemployment rates with relevant data from their states in order to get an accurate assessment of the impact of vocational education. Until that is done, we can only say that there may be certain advantages gained by attending vocational education programs.⁵

Income of Former Vocational Students

The incomes of graduates of community college vocational programs in all fields of study combined were available in only six of the follow-up studies. Methodological differences between the studies make comparisons extremely problematic; for example,

- were median or mean incomes used;
- were monthly or annual incomes presented;
- was the sample graduates and/or non-graduates who were employed full-time and/or part-time?

In addition, the data in each study were for a number of different years.

The data for the income of graduates are presented in Table 3. The first four columns provide information about the state in question, the nature of the sample, the income statistic, and the year to which the salary figures pertain. The middle three columns (5-7) present the incomes for former vocational graduates, broken down by sex, when possible. The first

conclusion that can be drawn is that male incomes are between \$2,000 and \$2,500 higher than female incomes in the three comparisons that are available.

In order to make the income figures more meaningful, national income data for 18 - 24 year-olds employed year-round full-time with some college or four years of college are presented in columns 8 - 16. These figures are presented for the appropriate year of each study and using the appropriate statistic. This is actually a conservative set of figures to use since many vocational graduates are 25 years old and above and probably earn higher incomes than most 18 - 24 year-olds.

The Virginia and Connecticut studies are the only ones in which precise comparisons with national data can be made since they use all graduates employed full-time and also provide breakdowns by sex. Two conclusions can be drawn from these two studies:

- male vocational graduates employed full-time have higher incomes than males with some college, but lower incomes than male college graduates;
- female vocational graduates employed full-time have lower incomes than women with some college and women who have graduated from college.

Evaluation of the income data from the four remaining studies is more problematic since the samples of students don't exactly correspond to the base populations of the national figures. The Illinois and South Carolina figures are lower than the national figures for men and women with some college, but the incomes of part-time workers are included in both studies. The Maryland incomes are somewhat higher than the national figures for men and women with some college, although those who did not get full-time jobs in their trained fields are excluded from the study. It is also interesting to note that there

is little difference between those Maryland graduates who began a new job after leaving college and those who stayed at the same job that they held while being in college. The Oregon figures are also somewhat lower than the national figures for those with some college, but non-graduates are included along with the graduates.

Although it is tempting to conclude that graduates who get jobs in their trained field receive relatively high incomes as was the case in Maryland, two other studies show that there is a wide range of salaries that graduates receive, depending upon their field of study. In New Hampshire, for example, the 1977 salaries of graduates ranged from \$7178 among those trained in business/clerical occupations, to \$9524 to those trained in industrial/manufacturing occupations.

Wilms (1975) presented the 1973 incomes for students who graduated in six different occupational fields. The median incomes of students are as follows: Cosmetology (\$4227), Dental Assistant (\$5239), Secretary (\$6513), Accounting (\$6578), Programming (\$7579), and Electronics Technician (\$9191). The three "female" occupations had the lowest salaries.

Wilms then asked whether those who got "related" jobs made more or less money than those who got unrelated jobs. In three fields, students with related jobs made more money than those with unrelated jobs in two fields, job relatedness did not affect income; in one field, cosmetology, students had higher incomes if they got an unrelated job. Thus, it is not at all clear that getting a "directly related" job is the way to a decent salary.

In a somewhat different type of study, Somers (1971) compared the monthly earnings of graduates of high school vocational programs with the earnings of community college vocational graduates in six different fields.

Although no absolute income figures are provided, Somers does provide data concerning the differences between the monthly earnings of high school and community college graduates after controlling for a number of factors including socioeconomic status, father's education, grade point average and sex. The results are rather striking. There are no significant differences between the average monthly earnings of high school and community college vocational graduates. When the hourly wage rates of first job or current job are compared between these two groups of students there are no significant differences, with one exception: community college graduates in health-related occupations did better than high school graduates in these same occupations. The findings of this study provide little support for the claims made by community college proponents about the economic payoff of vocational education.

Four of the states provided data on the incomes of non-graduates as well as graduates. The most significant finding of Table 4 is that non-graduates tend to have higher incomes than graduates. This is totally contradictory to the claims of vocational education advocates.

In the Illinois study, which included both part-time and full-time workers, students who dropped out during the first year made almost \$2000 more than those who graduated after one year. Students who had more than one year of college but who didn't graduate made over \$1600 more than those who graduated after two years.

The Virginia study, which included only full-time workers, asked former students to indicate the salary of their first job after leaving college and of their present job. Non-graduates made almost \$400 less than graduates on their initial jobs, but over \$600 more than graduates on their present jobs.

The Maryland study, which included only full-time workers employed in their trained fields, asked for initial and present salaries and also differentiated between those who began a new job after leaving college and those who kept the same job as they held while in college. For those beginning a new job, graduates were better off than non-graduates in their initial salaries and in present salaries. However, graduates had a \$1000 advantage in their initial salaries and only a \$200 advantage in their present salaries. In other words, the graduates were losing ground to the non-graduates.

Among those Maryland students who kept the same job, non-graduates were better off than graduates in both initial and present salaries. In fact, the dollar gap between graduates and non-graduates increased: the non-graduate advantage was less than \$1500 in the initial jobs, but over \$2000 in the present jobs.

In the South Carolina study, which included both full-time and part-time workers, graduates held a slim \$264 advantage. This is the only study to show that graduates have higher incomes than non-graduates. Two other studies show that non-graduates have an advantage, and one shows mixed results.

What are some possible explanations for these remarkable findings? First, it has been suggested that non-graduates tend to be those who already have jobs and come to college for only one or two courses to upgrade their skills. However, this explanation could not explain the Maryland findings that among those who held the same job as they did while in college, non-graduates are better off than graduates. In addition, Table 4 showed that non-graduates tend to have higher unemployment rates than graduates.

Second, students might continue in school only if they cannot find a job. Those who do find jobs might drop out and, consequently, might be working longer than graduates; if this were the case, non-graduates would be expected to have higher salaries due to their job tenure. This may be true, although none of the studies provide data pertaining to this question. If it is true, this does not speak very highly for the value of a vocational degree.

Finally, students who are non-graduates might also be older and be making more money because of the longer job tenures. Again, this is possible but no data are available. Since these data are inconsistent with the claims made by vocational education advocates, it is incumbent on them to adequately explain the findings in Table 4.

To summarize, the economic payoff of vocational education to the student is, at best, modest. Although a majority get jobs in the fields for which they are trained, a substantial minority do not. Unemployment rates among graduates are high and are not very different from the rest of the population. Men may have certain income advantages if they graduate from vocational programs, but women do not. Finally, although non-graduates are more likely to be unemployed than graduates, they tend to have higher incomes. If this information were to be publicized, the rush of students to enroll in vocational courses would slow down to a trickle.

Conclusion

The data presented in the previous section do not support the claims of community college advocates that vocational education is the road to economic security and social mobility. They are consistent with those who claim that the community colleges are the lowest track in a system of higher educa-

tion that serves to reproduce and legitimate those social and economic inequalities that are endemic to a capitalist society.

The "middle level" jobs for which some students are prepared have significantly lower salaries and less responsibilities than the professionals under whom they work. The blue collar, service and office jobs, which other students get, have typically low or modest salaries, especially when no unions exist. Students are convinced to enter these jobs either because they believe that they don't have the skills to finish college or because they believe that they will not be employable if they did finish.

Previous studies have shown that students from working class and Hispanic families are overrepresented in public two year colleges; the same is true for Black students outside of the South (Karabel, 1972; Pincus, 1974). These same groups are also overrepresented in vocational programs, in general, and the lower-level vocational programs in particular. In other words, it is the groups that are disadvantaged before entering college that are most likely to receive the questionable economic benefits of community college vocational education. The more privileged are more likely to complete college and receive jobs with higher incomes and longer job-ladders.

Women are also a disadvantaged group in American society and account for an increasing proportion of the student population in community colleges and throughout higher education. In 1977, 55% of full-time students and 50% of the part-time students in community colleges were female (Drake, 1978). Among full time students in public community colleges, female enrollment increased by 10.7% between 1975 and 1977, while male enrollment dropped by 17.6%. During the same years among part-time students, female enrollment increased by 19% while male enrollment increased by only 0.2% (National Center for Education Statistics, 1978). Many of these women, of course, are

entering vocational programs.

Yet, the data in the previous section suggests that the economic payoff for women in vocational programs is questionable. The incomes of female vocational graduates were below the incomes of male graduates and also below the incomes of all 18 - 24 year-old women with some college. They are tracked into traditional women's jobs, most of which are low paying (Eliason, 1977; Steiger, 1974). Thus, the community colleges help to reproduce sex inequality, as well as class and race inequality.

But not everyone loses. Big business gets part of its labor force trained at public expense. Elite universities do not have to deal with the issue of trying to educate "non-traditional" students so their "high standards" remain protected. So-called meritocratic standards give legitimacy to the tracking function of community colleges and make the resulting class and race inequalities appear as inevitable. As the forward to the U.S. Department of Health, Education and Welfare-sponsored Study of the Achievement of Our Nation's Students concludes:

The schools go along with society's tendency to route children of privileged families into privileged positions, and to route under-privileged children into under-privileged positions. It is not a plot on anybody's part or a conscious policy of education; it is just the way things work out (Mayeske, 1973:iii).

Although it is clear that the "effect" of community colleges and vocational education is to reproduce inequality ("things work out that way"), a case can be made that some policy makers knew exactly what they were doing. Given the correlation of race and class with various measures of academic skills, non-white and working class students had to be the ones to be tracked into community colleges and vocational programs; many community

college advocates are quite explicit about this. They also understood that the occupations these students would enter were inferior to those that college graduates generally receive. They also understood that these non-traditional students (including women and older people) tended to resist vocational education and had to be "sold" on it (Harris 1964; Nickens and Scott, 1976).

The December/January 1977-78 issue of the Community and Junior College Journal contains several articles on "marketing" community colleges to potential consumers (students). One article refers to community colleges as the "un-cola" institutions that face the same problems that 7-Up faced when they were trying to increase their sales over Coke and Pepsi. "The real challenge will be that of developing the sophistication to reach and impact the non-traditional, unreached, and not-yet-served student" (Johnson, 1977-1978:17).

Perhaps it is a bit too strong to say that this is part of a plot. Many people involved in community college decision-making would probably say that it is the best that can be expected, given the nature of American society. Some, on the other hand, have a profound understanding of the community colleges' role in trying to resolve some of the contradictions of American capitalism; for example,

If historical evidence can be used as a guide to future events, no matter what the shape of the nation's economy, it is certain that the educational opportunities for the unemployed cannot be curtailed. National security and welfare will depend upon how the community colleges can provide a safety valve for the alleviation of the public discontent and revolutionary tendencies, just as the public high schools did so for the nation during the Depression. For the sake of national peace and security, even reluctant taxpayers will be willing to make considerable financial sacrifices (Monroe, 1972:385)

Jencks and Riesman (1969) also use the "safety valve" analogy to describe community colleges in their influential work on higher education.

As community college critics have gathered increasing amounts of data, mostly from official sources, to support the tracking model, increasing numbers of community college supporters have called for a new sense of realism. For example, Arthur Cohen, Director of the ERIC Clearinghouse for Junior Colleges, states:

Admit that college is not for everyone, that we do not know how to teach the potential enrollees who do not learn in traditional ways or who react negatively to classical school contexts. How much rhetoric is enough? It is one thing to make high sounding promises in order to gain funding that will allow maintenance of certain necessary levels of service. But if the gap between expectations and realities is a mark of discontent, then community college proponents might well ask how much is added to the general state of social anxiety by promising jobs, higher status, and so on to all matriculants (Cohen, 1975:163).

Another recent ERIC publication takes a consumerism approach: be more truthful about what we can deliver or we will be sued (Vaughan, et al., 1976).

Other community college advocates suggest that these institutions should not be considered failures just because most students neither graduate nor transfer. Many do not want an AA degree, it is argued; and maybe they drop out because they found a job, which is what they wanted in the first place (Medsker and Tillery, 1971; Tschechtelin, 1976)

One report discusses the "massive adjustments" that take place between the students' initial high aspirations and the outcome of their community college experiences.

A "real" adjustment is defined as a genuine reconciliation of personal attitudes and abilities with the demands of the world of work. While often painful, real adjustment is positive... An adjustment can be defined as "imposed" if the disparity between initial goals and actual outcomes is imposed upon students from causes beyond their control. For example, do

some persons become turned off by the academic life and change their goals because of a frustration with classroom or college experience (Tschechtelin, 1976:33).

Of course, the report suggests that it is important to maximize "real" adjustments and minimize "imposed" adjustments.

Some students seem to be out of luck no matter what their aspirations are. If their aspirations are low, why blame the schools if they do not graduate. If their aspirations are "too high," it's the schools' responsibility to bring about "real adjustment." The registrar of one college put the matter even more bluntly:

We pay lip service to the "cooling out" function, but... we haven't fully accepted the idea. Dropping out often takes more courage and mettle than we can ever appreciate, involving as it does a decision guaranteed to disappoint parents and friends, and to bring the dropout face to face with the harsher realities of earning a living, or military service.... Might we not take some credit for helping them grow to the point where they dare to make their own appraisal of life and the role they want to play in it, even if it means dropping out during their first semester? Should we, perhaps, congratulate them? (Hahn, 1974:38).

One of the important ideas in the community college movement in the past decade has been "lifelong learning." Students are expected to return to school at many different times during their lives and for many different reasons; e.g., occupational upgrading, intellectual development, personal growth, etc. Dorothy Knoell (1977), an influential community college supporter, argues that recent high-school graduates who are enrolled full-time or who are seeking immediate employment or transfer to a four-year institution are becoming the exception in community colleges. Most of the students, she argues, are enrolled part-time, are older, and have "idiosyncratic objectives which differ from those set forth in college catalogues" (p. 22). Of course, there is less need to worry about the failure of community colleges in getting students jobs or facilitating their transfer to a senior college

if they have "idiosyncratic objectives."

All this discussion about realism, redefining goals and congratulating dropouts strips away the democratic facade of community colleges and reveals their true nature: the lower track of a higher educational system that serves the interests of the leaders of business, industry and government rather than the interests of working class, non-white and female students.

If the community colleges do decide to "level" with their students, as many supporters are suggesting, it would solve the problem of creating false expectations. However, other problems would arise. In his classic article, Clark (1960) says that the cooling out process must be kept secret for it to be effective; i.e., students must think that a two-year degree is just about as good as the four-year degree. If students understood the true nature of the economic payoff of vocational education, they might well opt for the liberal arts transfer program to try for a bachelor's degree. If this happens, higher education is right back where it started: too many students with unrealistically high expectations.

If, on the other hand, the community colleges continue to promote vocational education in order to lower aspirations, still other problems will emerge. First an "oversupply" of people in "middle-level" jobs is inevitable. Although Lombardi (1978) suggests that the "cobweb effect" will simply cause students to enter transfer rather than vocational programs, this will not provide a solution if an "oversupply" of people for college-level jobs still exists.

Second, economic recessions will result in layoffs for the newly hired "middle-level" workers. For example, during the New York City fiscal crisis, the number of teacher's aides employed in the public schools dropped from

13,500 in April 1974 to only 9500 in September 1976 (Vidal, 1977). These "middle-level" workers no longer have any illusions about the "security" that was supposed to go along with their educations.

Third, people will begin to realize the short career ladders and the relatively small chance for promotion that go along with their new occupations. Although the jobs may pay better than scrubbing floors and digging ditches, there are few options for social mobility.

All this might well lead to dispensing with the lofty images presented in public relations materials and bring community college advocates back to being realistic. But this would mean that the American dream of upward mobility is extremely limited, and would result in the kind of frustrations on the part of large sectors of the population that the Carnegie Commission was trying to avoid in the first place.

The lack of correspondence between education and jobs and between aspirations and realities will not be "solved" through community college vocational education. American capitalism cannot deliver on the promises made in the American dream. There are a limited number of decent well-paying jobs, and they are taken!

Arthur Cohen understands this when he discusses some of the "dilemmas" associated with the egalitarian ideal of open access.

If, as it is alleged, college attendance enhances social standing, then open access, especially if it changes the lines of social stratification, must have a negative effect on certain groups. Who are those groups? What form will their discontent take? Will those who have positions near the top of the heap lose status? If so, how can they be convinced that egalitarianism is desirable...When there is only so much money, the number of curriculums and jobs is finite. Which student will willingly give up his position in a desirable program to a new student? (Cohen, 1975:160-161).

Cohen is right when he says that changes in the stratification system "must have a negative effect on certain groups." The data and analysis presented in this paper suggest that it is the heads of the large corporations and the rest of the capitalist class that will be in trouble if the aspirations of the working class are not controlled. Community college vocational education is a reasonable response from the Carnegie Commission and their corporate supporters.

However, working people should not have to be afraid of their own aspirations. Even increasing numbers of people who hold "college level" jobs are complaining that working conditions are deteriorating and that workers are no longer able to be independent and creative; i.e., many "college-level" jobs are becoming "proletarianized (Bowles and Gintis, 1976). If the majority of Americans find that the schools and the economy do not act in their interests, they should work for the creation of a new society and a new educational system that will act in their interests.

FOOTNOTES

1. In this paper, the terms "community college" and "two-year college" will be used interchangeably even though a small percentage of two-year schools are actually extensions of four-year schools. The term "junior college" is generally used to refer to those schools which emphasize transfer programs. Community colleges, of course, also include vocational programs and various kinds of non-credit programs. For statistical purposes, junior college enrollments will be included in the figures given for community colleges. Recognizing the importance of the transition from junior to community colleges, the American Association of Junior Colleges changed its name to the American Association of Junior Colleges in 1972. Its official organ, Junior College Journal, was renamed Community and Junior College Journal in the same year.
2. The precise percentage of vocational enrollment is unknown because of the different classification systems used in different schools. However, all observers agree on one point: there has been a dramatic increase in vocational enrollment (Lombardi, 1978).
3. For a history of the vocationalization of community colleges, see Karabel (1972), Zwerling (1976) and Lombardi (1978).
4. The state unemployment rates were available in five of the comparisons but they did not affect the conclusions.
5. Racial breakdowns on unemployment and income were not made in most of the studies. In the few studies where they were available, the results are inconsistent.

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Table 1: Median Salaries of Selected Professional, "Middle-Level," and Clerical Workers by Rank in March 1977.

Type of Worker	Lowest Rank	Highest Rank	Highest Rank Range Lowest Rank
<u>Professional</u>			
Chemist	\$12,708	\$43,844	3.45
Accountant	12,000	36,000	3.00
Attorney	15,600	46,500	2.98
Engineer	14,400	37,124	2.58
<u>"Middle-Level"</u>			
Computer Operator	7,612	16,424	2.16
Engineering Technician	9,385	17,093	1.82
Drafter	9,948	15,454	1.55
<u>Clerical</u>			
Secretary	9,060	13,200	1.46
File Clerk	5,788	8,424	1.46
Keypunch Operator	7,560	8,940	1.18
Stenographer	8,580	9,840	1.15

Source: Bureau of Labor Statistics (1977)

Table 2: Unemployment Rates of Former Community College Vocational Students, of All Persons in the Labor Force, and of 16 - 24 Year-Olds Not Enrolled in School.

State/Study (1)	Year (2)	Former Vocational Students		Total Labor Force (5)	16 - 24 Year-Olds Not Enrolled in School	
		Graduates (3)	Non-Graduates (4)		Some College (6)	Four of More Years of College (7)
Virginia	1972	2.4%	3.8%	5.6%	*	*
Wilms	1973	13.3	*	4.9	*	*
Minnesota	1972	8.3	*	5.6	*	*
	1973	9.0	*	4.9	*	*
	1974	13.4	*	5.6	7.1	5.0
	1975	11.9	*	8.5	10.5	8.3
Connecticut	1975	6.6	*	8.5	10.5	8.3
Illinois	1975	6.5	6.0	8.5	10.5	8.3
	1976	3.4	3.7	7.7	9.9	7.1
Pennsylvania	1976	10.2	*	7.7	9.9	7.1
New Hampshire	1975	9.0	*	8.5	10.5	8.3
	1977	5.6	*	7.0	7.7	8.0
Hawaii	1976	6.0	*	7.7	9.9	7.1
	1977	6.7	15.7	7.0	7.7	8.0
South Carolina	1977	9.3	14.2	7.0	7.7	8.0

*Not available

National data obtained from selected reports of the Bureau of Labor Statistics

Table 3: Annual Incomes of Former Vocational Students in Six States and Annual Income of All 18 - 24 Year-Old Year-Round Full-Time Workers.

State (1)	Sample (2)	Statistic (3)	Year (4)	Former Vocational Students			18 - 24 Year-Old Year- Round Full-Time Workers [@]			
				Total (5)	Males (6)	Females (7)	Males		Females	
							Some College (8)	4 Years College (9)	Some College (10)	4 Years College (11)
Virginia	Graduates Em- ployed FT	Median	1972	\$6759	\$7349*	\$4872*	\$7044	\$ 8072	\$5572	\$6968
Connecticut	Graduates Em- ployed FT	Mean	1975	7500	9642	6615	8639	10,627	6981	7994
Illinois	1-year Gradu- ates Employed FT and PT	Median	1975	5508	**	**	8540	9803	6886	8091
	2-year Gradu- ates Employed FT and PT	Median	1976	6792	**	**	9132	10,107	7143	8739
Maryland	Graduates Em- ployed FT in Trained Field in New Job#	Mean	1976	9636	**	**	9274	10,386	7242	9020
	Graduates Em- ployed FT in Trained Field in Same Job#	Mean	1976	9471	**	**	9274	10,386	7242	9020
Oregon	Graduates and Non-Graduates Employed FT	Median	1976	**	7560	6444	9132	10,107	7143	8739
South Carolina	Graduates	Median	1977	7656	**	**	**	**	**	**

[@]Data obtained from various Current Population Studies reports.

#New Job: those who began a new job after leaving college. Same Job: those who, upon leaving college, kept the same job that they held while attending college.

* Estimated: Total income of graduates was 94% of the total income of non-graduates. The combined (graduate and non-graduate) incomes for males and for females were multiplied by .94 to get estimated graduate incomes.

** Not available.

Table 4: Annual Incomes of Graduates and Non-Graduates of Community College Vocational Programs in Four States.

State	Graduates (n)	Non-Graduates (n)
Virginia		
Initial income*	\$5320 (1505)	\$4934 (2232)
Latest income**	8750 (1571)	7409 (2358)
Illinois		
First year #	5508 (254)	7452 (779)
Second year ##	6792 (774)	8436 (439)
Maryland		
<u>Began New Job</u>		
Initial income	7486 (232)	6469 (233)
Latest income	9636 (271)	9212 (268)
<u>Kept Same Job</u>		
Initial income	7717 (45)	9184 (267)
Latest income	9471 (50)	11,528 (330)
South Carolina	7656 (706)	7392 (1181)

* Income of first job after leaving college

** Income of most recent job

Students who graduated or dropped out within one year

Students who dropped out after one year or who graduated within two years

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